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THE OHIO STATE UNIVERSITY

COLLEGE OF EDUCATION

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Educational Research Bulletin

THE DECROLY CLASS—A CONTRIBUTION TO ELEMENTARY EDUCATION

O. G. Brim
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The experimental schools in America represent an earnest attempt to contribute to the improvement of educational practice. Although all schools that style themselves experimental schools do not deserve the name. Some, in order to appeal to the clientèle that patronizes private schools, have assumed the name with little justification in fact. Those making a serious attempt to organize the conduct of the school in keeping with a body of educational principles, at variance with current practice, deserve encouragement and study. Mistakes must be expected since the attempts are excursions into an uncharted field, but even these will be instructive. Moreover, if we can forego our own preconceived ideas and prejudices, these schools are found to abound in sound and constructive contributions.

Those who are interested in the newer types of curriculum and school organization will find a close study of educational changes in Europe extremely significant and stimulating. Russia has organized its entire school system in a manner similar to that described by Collings in his *Experiment with a Project Curriculum*,[1] and worked out in practice by the Walden School, New York City or by the Edgewood School for Organic Education at Greenwich, Connecticut. The present educational tendency and practice in Russia is presented at some length by Scott Nearing.[2] This report seems trustworthy in spite of the author's evident sympathy for the Soviet government, because a similar picture of the educational practice in Russia was given by a recent lecturer at Ohio State University, an Englishman who had just returned from a year spent in Russia. In the latter case there was little likelihood of bias since he himself was actually out of sympathy with the movement.

Another European experiment worthy of special attention by Americans is the class in Brussels started by Dr. Decroly. The plan developed in a school for defectives and was later used in a private school for normal children. It was then tried out for five years by Miss Hamaide[3] in one class of a city elementary school and is now in successful use in a dozen classes in the school system of Brussels and its suburbs.

The plan grew up independent of the influence of educational thinking in this country, although it bears a striking similarity to the conclusions of progressive educators in America. Representing, as it does, the conclusions for

[1] New York, Macmillan Company, 1923.

[2] *Education in Soviet Russia*. New York, International Publishers, 1926.

[3] Hamaide, Amelie. *The Decroly Class*. Translated from the French by Jean Lee Hunt. New York, E. P. Dutton & Company, 1924.

education based upon a study of the child by one who was at once a doctor, a psychologist, and a pedagogue, it comes with special weight. It is also worthy of careful study, because of its sound common sense, its practicality, and the fact that it lacks the extreme statements which characterize some of our own educational pioneers. Enthusiasm and emotion have not run away with the judgment of the doctor-psychologist. The more progressive schools in our country have been led by their principles to a relatively unorganized curriculum and school activity—many would call it disorganized and so it sometimes appears even to a sympathetic and appreciative observer. Dr. Decroly, on the other hand, has been led to develop a curriculum which is quite definitely organized but which sacrifices little, if any, of the principles of child growth. His contribution in this respect is most interesting and instructive.

One finds in the presentation of Dr. Decroly's educational theory many statements that are familiar. Two of his basic formulas are, "Let the child prepare for life by living," and "Organize the environment to afford adequate stimuli for the tendencies favorable to development." School, according to his theory, is not primarily a place where children study books. It "should be located among natural surroundings, in an environment affording the children daily experiences with the phenomena of nature, and with manifestations of the life led by living creatures in general—by man in particular—in their efforts to make adaptations to the conditions of existence in which they find themselves."[1] A child will be educated to the best advantage "by means of a practical initiation in living—that is, by a wide range of experiences, more especially of experiences in social living."[2] He advocates activity, experience at first hand, and interest based upon special needs of successive age periods, in a word, recognition of the child himself. He holds that the school should be a *laboratorium* rather than an *auditorium* and demands that manual activities contribute to learning throughout the grades rather than serve merely as another formal subject in the upper grades.

The most interesting and unique feature of his work is the plan for organization of subject-matter, the Program of Associated Ideas. The two major needs of the child are knowledge of himself and knowledge of his environment. The curriculum that follows from these requirements is organized about a child's primary needs; the need to feed himself, to protect himself from the elements, to defend himself against dangers and enemies of various kinds, the need of activity, of work with his fellows, of recreation, and of self-development.[3]

The topics considered in the several grades relate quite directly to these basic needs. The work for the first grade during October and November was, for instance, a study of fruits and was developed as follows:

FIRST YEAR

October-November I am hungry Fruits

OBSERVATION. Common fruits—wild and cultivated fruits—fresh, dried, preserved fruits.

Measurement: Measures of comparison—number, shape, color, size, thickness, weight, taste, roughness of outside covering.

Comparison of fruits of the same kind, of different kinds.

How fruits are sold—for how much? Different quantities having the same weight. Different prices. Grouping of fruits by 2, 4, 6, etc. Practice in number combinations using fruits as objects of direct perception.

Buying of fruits at the market with the children—paying for them.

Practice in class—buying, selling, paying.

[1] Hamaide, *op. cit.*, pp. 13-14.

[2] *Ibid.*, p. 19.

[3] *Ibid.*, p. 20.

ASSOCIATION. Use of fruits for food. Methods of preparing, of preserving, etc. Comparisons, classifications, syntheses. How fruits are gathered, shipped, sold, eaten.
In Space: Where fruits come from—stores, markets, the huckster's cart, orchards, foreign countries. Transportation of fruits.
In Time: Length of time fruit will last if kept in the classroom. Time needed to prepare a compote—to eat it.
ABSTRACT EXPRESSION. Sentences summarizing observations. Affixing labels to the various objects in the classroom (furniture, objects modeled in clay, etc.)
Reading: Making of numerous games for reading that relate to the lessons in observation and result in rapid progress in reading vocabulary.
Writing: Copying of written sentences—illustrating them by means of sketches.
CONCRETE EXPRESSION.
Modeling: Modeling fruits in clay.
Drawing: Drawings of fruits—of the class in the market—of the class making compote, etc.
Manual Work: Cutting out. Classification of pictures (fruits, dried, edible, etc.) Collective work by the class—sand table representations, the orchard, the market, the road to market (use of clay, of paper).
CONDUCT. Danger from swallowing seeds, nuts. Danger from green fruits—from overeating of fruits.[1]

Dr. Decroly follows an interesting order in the development of such a topic. The steps are: (1) Observation, (2) Association, (3) Abstract expression, (4) Concrete expression, and (5) Conduct. He has been able to include a vast number of activities and experiences while still preserving the naturalness of the problems and activities.

The choice of terms and the formal division of these steps suggest a definite Herbartian pedagogy. There are evidently lessons on observation, presumably covering several days, then lessons in association, later lessons in expression. Just what this implies one hesitates to say. The meaning of the terms to the group which is promoting this plan may have had a different significance lost in the translation. These activities may, in practice, have occurred quite together as different aspects of a single experience with changing emphasis. The terms used throughout the plan and the fairly formal division of these activities in the schedule of work suggest a greater adherence to the Herbartian psychology and pedagogy than would be tolerated in America. The originality of the attempt, however, the consistency between the many details of the plan, and the fact that it has been used under typical public-school conditions make it worthy of attention.

APPLICATION OF THE TECHNIQUE OF THE STANDARDIZED TEST TO THE INFORMAL OBJECTIVE EXAMINATION

R. O. BILLETT
Painesville

EXAMINATIONS may be grouped into three classes: the "essay" type, in which one is asked to "describe," "define," "discuss," or "tell what you know about———" is familiar to all. The standardized test, constructed by the application of scientific principles, has resulted in the production of many more or less accurate measuring instruments. The third sort is the recent, if not the novel, informal objective examination.

The purposes of the examination are to motivate school work and to measure progress. If, in addition to securing these two laudable aims, an examination will provide a diagnosis

[1] *Ibid.*, p. 186-88.

of the class's status in general, and of each individual's progress in particular, little remains to be desired. It was to serve just such purposes that the standardized test was evolved. Professor Horn, in the Preface to Ruch's book, *Improvement of the Written Examination*,[1] states that standardized tests do not meet many needs which examinations may serve. For example, few standardized tests measure the progress of a class over a brief period of time, nor are they easily adapted to subjects in which there are great differences of opinion regarding content. The use of standardized tests also involves an error of undetermined magnitude in the form of practice effect, and few tests have been developed which measure educational objectives.

It is highly desirable that the classroom teacher learn something of the technique of test-making. This technique may then be applied to the construction of informal examinations which will better motivate classroom work, furnish a diagnosis for remedial aid, and measure the results of instruction with a validity, reliability, and objectivity never even faintly approximated by the essay type of examination. This will demand some preliminary study of the fundamental principles upon which good test construction is based, but it is of the sort which any teacher may master.

An analysis is here presented of an informal objective examination, given during the second semester of the school year of 1924–25 to seventy-five sophomore students who were taking ancient history in the high school at Painesville.[2] The examination consisted of one hundred and thirty-five questions. In addition to eighty-five true-false questions, twenty-five of the items constituted a completion matching exercise, and twenty-five were ordinary completion tests. Through the analysis of the scores obtained, an attempt was made to judge this informal examination by the criteria, validity, reliability, and objectivity usually applied in the evaluation of standardized tests. The information, thus gained, was used in judging the value of the informal examination, and also guided the rearrangement of the items of the examination so that it might be used more effectively with later groups of students.

Certain characteristics or features of the examination will increase its value as a measuring instrument. It is desirable that the questions in an examination advance from easy to more difficult by degrees of approximate equality. Ruch remarks that the reliability of an examination is often materially improved if the questions advance from easy to more difficult since pupils are often delayed by a difficult question at the beginning of a test and hence do not do so well as they might have done had the test been better arranged. The assumption is that the questions answered correctly by the smallest number of pupils are the most difficult.

Portions of the chart used in the analysis of the pupils' responses to each of the 135 questions in this informal examination are displayed in Figure 1. The chart was made in sections and pasted together, so that, although in its final form its dimensions were 24 inches by 70 inches, it was not unwieldy to work with. The following information was available from the finished chart:

1. Number of pupils answering each question correctly.
2. Number of pupils answering each question incorrectly.
3. Number of pupils omitting each question.
4. Percent of pupils answering each question incorrectly.

[1] Chicago, Scott, Foresman Company, 1924.

[2] The examination was prepared by the teacher of ancient history, Miss Mildred Cumings.

5. Number of right responses made by each pupil on the entire examination.
6. Number of wrong responses made by each pupil on the entire examination.
7. Number of right responses made by each pupil on the odd-number and even-number questions.
8. Number of wrong responses made by each pupil on the odd-number and even-number questions.

Their relative positions within the examination were then determined by their difficulty, judged by the number of students who failed to answer every question correctly. This was done by assigning weights to each item. To accomplish this weighting by scientific methods the table in

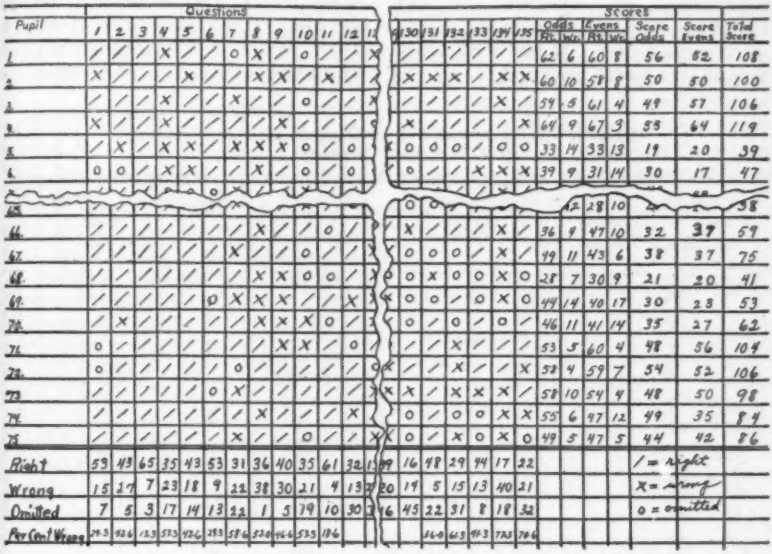

FIGURE 1. SCORES OF THE SEVENTY-FIVE STUDENTS ON THE ONE HUNDRED AND THIRTY-FIVE QUESTIONS

The fairness of the questions answered by few or none of the students was next considered. This fact could only be determined by personal judgment. The validity of an informal test, namely, the extent to which it measures what it purports to measure, is largely a matter of opinion. For this reason it can only approximate the validity required of a standardized test. The questions of this test were judged valid by the teacher and the principal.

Rugg's *Statistical Method Applied to Education*[1] was used. This table gives the percentile scores to be assigned to test questions according to the various percents of pupils who *fail* to answer the questions correctly. By this table a percentile score of 8 should be assigned to a question failed by 0.96 percent to 1.17 percent of those taking the test, and so through a series of scores to 91 which is assigned to

[1]Boston, Houghton Mifflin Company, 1917.

the questions failed by 99.6 percent to 100 percent of those taking the test.

In Table I are given the data from which the weighting of the ten easiest and ten most difficult questions of the test was determined. In the first column is given the number of each question in the original test. For example, Question 61 in the original examination was answered correctly by 66 students; its number in the revised order was 5. It tied with Question 122 for fourth place and so received a rank of 4.5 which is a more accurate statement of the relative order than that assigned in column 3. Question 61 was answered incorrectly by 12 percent of the students and therefore by Rugg's table, just mentioned, it should receive a weighted score of 3.1.

In the construction of the column, *Weighted Score*, of Table I, all percentile scores were divided by ten to reduce them to reasonable examination marks.

The tabulation of the pupil's scores shown in Figure 1 was necessary because the formula used in checking true-false questions is

Score = Rights—Wrongs.

From this tabulation the reliability of the test was determined by the correlation of scores on the chance halves of the examination. The correlation worked out using Toops' correlation sheet was 0.87. Figure 2 is a correlation chart which shows the correlation between the odd and even questions of the test. The reliability of the entire examination was determined by substitution in Brown's formula,[1]

$$r_s = \frac{N_r}{1 + (n-1)_r}$$

and by computation was found to be .93.

TABLE I. REARRANGEMENT OF AN OBJECTIVE TEST AND SCIENTIFIC WEIGHTING OF MARKS

Original Order	Number of Right Answers	Revised Order	Rank	Percent of Wrong Answers	Weighted Score
(1)	(2)	(3)	(4)	(5)	(6)
115	73	1	1	1.3	1.4
37	68	2	2	9.3	2.9
44	67	3	3	10.6	3.0
122	66	4	4.5	12.0	3.1
61	66	5	4.5	12.0	3.1
3	65	6	6.5	13.3	3.2
27	65	7	6.5	13.3	3.2
110	64	8	8	14.6	3.3
15	63	9	9	16.0	3.4
119	62	10	10	17.3	3.5
33	15	126	127	80.0	6.4
113	15	127	127	80.0	6.4
120	15	128	127	80.0	6.4
68	13	129	129	82.6	6.6
128	12	130	130	84.0	6.7
123	10	131	131	86.6	6.9
87	8	132	132	89.3	7.1
116	5	133	133	93.3	7.5
96	3	134	134	96.0	7.9
95	2	135	135	97.3	8.1

[1]Garrett, Henry E. *Statistics in Psychology and Education*. New York, Longmans, Green and Company, 1926. p. 269.

Objectivity of scoring is attained when two examiners, grading the same paper, independently assign the same score. A high degree of reliability cannot exist with a low degree of objectivity. In fact the high reliability of the set of questions herein analyzed must be ascribed in part to the high objectivity of the examination. Part of the reliability is also due to careful administration of the examination and its length. Most examinations are too

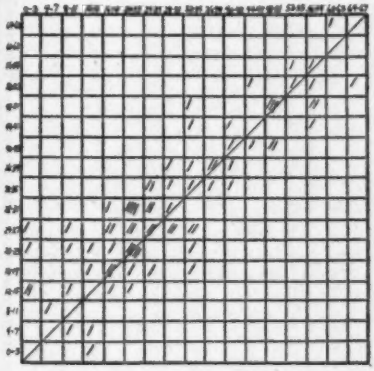

FIGURE 2. CORRELATION CHART SHOWING CORRELATION BETWEEN SCORES ON ODD AND EVEN QUESTIONS

brief. The longer an examination can be made, the more reliable it becomes. The practical situation will control, in part, the length of the examination.

The results obtained from this informal objective examination show that an exceedingly reliable measuring instrument may be arranged if it be adapted to the subject-matter covered by the class. Furthermore, there is no reason to believe that such results cannot be obtained by any competent and careful teacher who will devote considerable time to the preparation of good questions and to the arrangement of them according to the technique of the standardized tests. It should also be kept in mind that there is every reason to believe that a rearrangement of the questions in the order of difficulty and the weighting of the questions will result in an increase of the already high reliability coefficient.

There was, also, no reason why this examination, or at least many of the questions constituting it, should be discarded. The subject-matter of the history course was not likely to change greatly during the next two or three years. It was therefore entirely possible to build an examination, which might be given to the history pupils of the following year, consisting of almost exactly the same elements properly arranged and weighted, improved in mechanical make-up and objectivity, having a known reliability and a validity which has been carefully checked.

The general conclusion of this analysis is that by the careful construction of questions the competent teacher may frame informal objective examinations possessing high degrees of validity, reliability, and objectivity. Such a teacher may develop a series of tests possessing all the desired characteristics of a good examination and furnishing in best possible form, a motivation for classroom work, diagnosis for remedial instruction, and an equitable distribution of grades.

If the slogans of today were carried back to the seventies the working men who were urging compulsory school attendance and free public schools in the seventies would have been denounced as bolshevists by the small group of people who can always be counted upon to raise the cry of dangerous radicalism when any measure of social progress is considered.

—*N. E. A. Proceedings*, 1926

ACTIVITIES OF THE BUREAU OF EDUCATIONAL RESEARCH

The information collected two years ago from the teachers of the state in connection with Project 7 is being used in this study. The cards containing the information have been grouped first with regard to size of place, Group I comprising cities having a population of more than fifty thousand, Group II cities of less than fifty thousand, and Group III county schools. A sampling scheme is being used for the elementary schools of all groups, and for the high schools of Groups II and III.

The cards have been classified by sex to study the relation of sex to salary, and still further subdivided on the basis of one-room rural schools, primary grades I, II, and III, intermediate grades IV, V, VI, grammar grades VII, VIII, and junior high schools and senior high schools, to study the relation of type of position to salary. In the high schools, the relations existing between salary and such factors as, subjects taught, teaching load, experience, and training are being investigated.

In the rural schools there is practically no correlation between salary and training, and very little between salary and experience. In the city elementary schools experience is the most important factor in determining salary.

A study of the most difficult problems in the administration and supervision of the senior high school is in progress. The data were submitted by approximately four hundred principals throughout the United States during the past year.

It is hoped to determine, on a basis of principals' ranking and frequency of mention, which problems are the most difficult and which, if any, are peculiar to certain geographical sections. The professional status of principals will be given much consideration in the final report of the study. In addition, the principals were asked to rank the "Seven Main Objectives of Education" as they believe they should be emphasized by the senior high school. The composite ranking should be one indication of current educational philosophy as it relates to secondary education. This ranking will be compared with the data presented on page 85 of the *Second Yearbook of the Department of Superintendence.*

An illuminating and valuable article entitled "A Legislative History of the Public-School System of the State of Ohio," by Mary L. Hinsdale, was published in the first volume of the *Report of the Commissioner of Education* for 1901. It is not strange that such information has a way of becoming submerged in the mass of educational literature. The data presented in the article have been carefully analyzed, briefed, and arranged chronologically in parallel columns, in the form of a chart. Twelve categories seem to include all the school legislation. These categories, which have been used as column headings, are: (1) Districts and Lands, (2) Types of Schools, (3) Administration, (4) Teachers, (5) Pupils, (6) Subjects Taught, (7) Length of Term, (8) Textbooks, (9) Libraries, (10) Revenues, (11) Buildings, and (12) Miscellaneous.

Some very interesting information is disclosed, particularly with reference to the certification of teachers and the subjects taught at different periods. For example, no provision was made for certification of teachers until 1825.

Applicants were required at this time to hold certificates of qualification and of good moral character. They were examined in reading, writing, and arithmetic. This was amended so that "any school district desirous of employing a female teacher for instructing children in spelling, reading, and writing only, and the directors thereof should signify the same in writing to the school examiners, it should be lawful in such case for the examiners to give such teacher a special certificate." In 1849, English grammar and geography were put upon the list of the subjects for examination; in 1853, orthography was added; in 1882, United States history; in 1888, elementary physiology; and in 1896, civil government.

Junior High School English has been set up as Project No. 60 for intensive study during the present school year. In order to secure letters written by young people of junior and senior high-school age, a request was sent to about three hundred superintendents asking that the names of their high-school English teachers might be given if they were willing to cooperate on this problem. Letters explaining the project have been sent to approximately six hundred teachers, and it is hoped that a most generous response will be secured.

If letters which were not intended for the eyes of teachers can be secured and analyzed in sufficient numbers, it is felt certain that the present usage of English will be known, and some light shown on the question of where emphasis should be placed in the teaching work.

Twelve county superintendents in Ohio have agreed to cooperate on a project which will attempt to ascertain the influence of absence on school work as determined by the use of standardized tests and teachers' marks. This study when extended into consolidated village schools should show quite accurately the influence of this one factor when other factors have been stabilized. General intelligence tests and standardized achievement tests in arithmetic and reading will be used.

AN excellent bulletin[1] recently published by the State Department of Public Instruction of Michigan gives a very clear statement of the problems of, first, the blind and the partially sighted; second, the deaf and the hard of hearing; third, the crippled; fourth, the defective in speech; fifth, the mentally retarded; and sixth, the training of teachers. Four appendices give the Michigan laws relative to these different topics. One seldom finds so much important information condensed into such small space. The great importance of the public schools caring for these different types of handicapped children is well expressed. Existing conditions are well stated and suggestions for a procedure.

A bibliography of some half-dozen titles under such heading gives the more important sources where one can get the detailed information. When one appreciates a little of what the handicap of blindness means and then realizes that most of it is entirely unnecessary and could have been saved in the schoolroom, he wishes that every school-board member, every superintendent, principal, and school teacher could read this little pamphlet and learn what might be done to save all this trouble.

Nothing that we do in education is more important than the care and training of these handicapped children. To many a "partially blind" school man it looks very expensive but it is far more expensive in the end if they are not cared for.

H. H. GODDARD

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[1] BERRY, C. S. *The Education of Handicapped School Children in Michigan.* Lansing, Michigan, Department of Public Instruction, 1926. 56 pp. (Bulletin, No. 11)

Ohio State University

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WITH THE TEXTBOOK AS A TEXT

IN spite of all that is being said about teaching children or teaching subjects, it is evident that teaching textbooks is still in vogue. Even when teachers do recognize that the text is but a means to an end, there is probably no other one thing which more definitely determines the activity of both teachers and pupils than the textbook. Memories of childhood days in school, memories of the one or two years of training if they are in the elementary field, memories of the emphasis of their major department if high-school teachers, references in their course of study and in the directions from administrative and supervisory force, all lead to this end.

Perhaps the textbook should be the center of attention! Who knows? The fact remains that in many schools the pupils are wholly dependent upon the text, because there is no supplementary material. In all too many cases the textbook contains more information in the subject than the teacher possesses. A combination of these two conditions heightens the importance of the textbook. We face a condition and not a theory.

These facts suggest that a heavy responsibility rests upon the writers of textbooks. When the children are so completely dependent upon textbooks, when teachers rely heavily on them for content and frequently for method, as well, it is incumbent upon those who write such books to ponder well their hypotheses and procedure.

Textbooks are used by the children and teachers because they have been adopted. They are adopted by lay boards of education, sometimes only on the advice of the sales agent. Sometimes the adoption follows the recommendation of the superintendent, a group of principals, or a committee of teachers. Rarely, however, has any individual or group been able to go back of the claims of the author or the agent and verify these claims. In general these statements must be taken on faith, faith that these claims contain the whole truth and nothing but the truth. This again places a heavy responsibility upon the author of a text.

Even if we have not yet arrived, all of us hope that education is making progress toward becoming a science. One of the conditions necessary for such progress is that our textbook writers follow rigid scientific procedure. One of the first essentials in scientific procedure is the separation of assumption from fact. Facts have been demonstrated, assumptions are yet to be proved, but the true scientist uses both. He follows facts as far as they go, using all available evidence and following the weight of evidence where there is seeming conflict. He may then make assumptions or base his procedure upon hypotheses, but in his statements to his colleagues and the public he carefully distinguishes between what has been demonstrated and what has not been.

Textbook writers have not always shown scientific training in this respect. The statement, "His reading aids him greatly in learning to spell," is given as fact in the authors' Foreword of a recently published text. Teachers and

pupils, principals, superintendents, and boards of education may well be expected to accept this statement as a demonstrated truth. Yet no carefully controlled experiment has furnished the basis for such a statement. It is well known that few people are good proofreaders, because misspelled words do not attract their attention when reading. Unless recognition of words focusses attention on correct letter forms and letter order, how may it be expected to aid in learning to spell?

This is only one illustration of the point. Failure to utilize the facts which are known in regard to vocabulary is another field where textbook writers have not followed scientific procedure. Of course it is easier to write without being bothered by what has been proved and what has not. Such procedure may be conceded to those who write for a clientèle that selects its own material. But writers of textbooks which must be used by children and teachers who have little or no voice in the matter of selection should shoulder the responsibility of holding themselves to the regulations of scientific procedure.

E. J. A.

CREATIVE ADMINISTRATION

THERE is administration that is destructive; there is administration that is laissez fairre; and there is administration that is creative. Creative administration implies experts and affords the greatest challenge that education offers, for every problem in education is sooner or later an administrative problem. A thing may be true in theory, but it is of little use unless the administrator can translate it into practice. What is the use of spending money in research endeavoring to determine how children should learn or how teachers should teach, if nothing comes of it?

Research is service and does not exist for its own end—in fact progress depends upon research. The man who invented the intelligence quotient will go down in history as one of the great inventors. He will have done untold service to future generations, just as Pasteur did in his discoveries.

Inventions in school administration are often the result of accident and the necessity of the occasion. "Necessity is the mother of invention" in school administration as well as elsewhere. What the schools need today is more administrative inventions and a broader and better use of the inventions now available.

School administration in the next generation will be much more complex than it is at present or was in the past. If the population of the United States should stand still during the next twenty-five years, the number of children attending high schools and colleges would nevertheless double or triple. Each succeeding generation consumes more education than the previous generations. The schools will be more complex, more extensive, and a larger percent of the population will attend school during the next generation despite population statistics. Today about 25 percent of the families of a community furnish about 75 percent of the children in the high school, and probably less than 10 percent of the families of a much wider constituency furnish 90 percent of the college students. The educational tradition grows and spreads with the time, however. In the next generation, in all probability, 50 to 75 percent of the families will have children in the high school and 15 to 20 percent will have children in college. You cannot increase the number of high schools and colleges without increasing the need for more expert school administration. If we can attract the right kind of young men and women, from our

colleges and universities and from teaching positions in the classrooms in our public schools, into school administration and there give them expert training, a tremendous transformation in public education can be accomplished.

The progress of the public schools depends largely on creative administration. At present the school systems of America are too largely in the hands of laymen. Lay boards of education composed of men and women who are selected by the people are given almost unlimited power in the administration of the schools. The average board members have a longer tenure than the average superintendent. They have legal powers and position and they can, and do, control and direct the policies of education. Few if any of these board members are experts; and many of them are unwilling to trust the direction of education to experts. They may hire experts, but they are usually reluctant to trust them.

If we are to have expert service we must teach the public to appreciate and respect experts in education. Suppose, for example, the hospitals of this city should permit the lay-board members to perform the operations, suppose the city manager should follow the policy of hiring local politicians as experts; immediately we should lose faith in the hospital and in the management of the city. The American people have tremendous faith in the public schools. Can we not increase that faith by more expert "creative" administration?

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THE quarrel between theoretical psychology and its various "applied" offspring goes on with considerable violence and variable results. In the field of education, it seems safe to say, the "application" has been victorious over its parent. Some of the unhappy consequences of that victory Dr. Hullfish has pointed out in a recent monograph.[1] The particular target of his criticism is Thorndike, but his fundamental contention that we cannot have an educational psychology until we first have a psychology will be apropos in other academic cloisters besides Columbia's.

In support of his contention that Thorndike's educational psychology has no adequate theoretical basis Dr. Hullfish examines in detail certain of the pronouncements especially associated with Thorndike; namely, the doctrines of "readiness," of "satisfaction and annoyance," and of concept formation. In each instance he is able to show, with citations of chapter and verse, that Thorndike appears successively as structuralist, functionalist, and behaviorist, together with minor variations of his own, all without any evidence in his published writings that he is aware of the contradictions of this protean rôle.

In deference to earnest souls who may be expected to reply that such criticism is "merely destructive" Dr. Hullfish has been at some pains to offer what seems to him a theoretically consistent account of the learning process. That this account will not meet with the favor of many present-day psychologists is, at the moment, a point of secondary importance. What is vital is that this study makes articulate and unmistakable a long delayed demand, the demand that present-day educational psychology get itself legs to stand on before it undertakes to wear any seven-league boots.

T. LIVINGSTON SCHOLTZ

[1]Hullfish, H. Gordon. *Aspects of Thorndike's Psychology in their Relation to Educational Theory and Practice.* Columbus, Ohio, Ohio State University Press, 1926. 113 pp. (Ohio State University Studies, Contributions in Principles and Practice, No. 1)

THE TEACHING WORK OF PRINCIPALS OF RURAL HIGH SCHOOLS

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THE relation between the academic preparation of principals of rural high schools of Ohio and their present teaching duties was discussed in an article in a former issue of this Bulletin.[1] The present article deals with the same principals and schools, and the information was secured from the same sources. Of the 1,045 principals, thirty-two reported that they did no teaching and six failed to report whether they were teaching or not.

The distribution of these principals among the different classes of schools is given in Table I. The upper half of the table reports the number of principals in each type of school and the lower half shows the percent which this number is of the total in each particular class. The table should be read thus: 763 of these principals were teaching in first-grade high schools, 32 were not teaching, and 6 did not report. Those teaching were 95 per-cent of all the principals in schools of this grade. From this table it would seem that all principals of second- and third-grade high schools give some time to teaching. Since there are but five junior high schools reported, it is unsafe to draw any conclusions for this type of school.

More significant, however, than the mere statement that the principals

TABLE I. PRINCIPALS WHO WERE TEACHING IN OHIO'S RURAL SCHOOLS

	First Grade	Second Grade	Third Grade	Junior High	No Charter	No Report*	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Number						
Teaching	763	153	80	3	1	3	1,005
Not teaching	32						32
No report†	6	1	1				8
Total	801	154	81	3	1	3	1,045
	Percent						
Teaching	95	99	99	100	100	100	
Not teaching	4						
No report†	1	1	1				
Total	100	100	100	100	100	100	

* No report as to grade of school.
† No report as to teaching.

[1] See 5:307-11 October 20, 1926.

do some teaching is the fact revealed in Table II. Here are reported the percents of the principals teaching a specified number of classes. The task of the principals in first-grade schools varies from no teaching to eight classes per day. Nearly 45 percent of them teach either four or five classes and 22 percent teach six or more. Hence the teaching load of the principals in even first-grade high schools must be considered rather heavy. In second-grade high schools 63 percent teach either five or six classes per day, and in third-grade 60 percent teach six or seven classes. The figures for junior high schools, schools which have no charter, and those which did not report the type of school are too few to be significant. Generally speaking, the median number of classes taught by the principal in all the rural and village schools was five. The medians for the different classes of schools are:

Type of School	Median Number of Classes
First grade	4.72
Second grade	6.10
Third grade	7.21
Junior high	4.75
All grades	5.17

The principals in second-grade schools teach about 30 percent more than those in first-grade and the principals in third-grade schools, 53 percent more than those in first-grade.

The number of classes taught per day is only one measure of the teaching load. Another measure is the size of class which is taught. Table III gives, for all types of schools, the percent of principals having the average class enrollments indicated at the left. The table is read as follows: One-tenth of one percent of principals in first-class schools had an average enrollment in their classes of 50 and above. Another tenth had an average enrollment of 45–49; two-tenths of 40–44; and so on. The *Ohio High-School Standards* states that "the number of pupils per recitation section may average thirty." It is evident from this table that the vast majority of the classes are below this maximum, but that roughly 4 percent of the principals in first-class schools have an average of more than this number.

Table IV gives the median enrollment of classes taught by these principals. Here it will be noted that the

TABLE II. PERCENTAGE DISTRIBUTION OF PRINCIPALS' CLASSES IN EACH TYPE OF SCHOOL

Type of School	Percent of Classes Taught										Total Number of Principals
	N*	0	1	2	3	4	5	6	7	8	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
First grade	.7	4.	4.	9.	18.	23.	22.	15.4	3.7	.6	801
Second grade	.6	.....	.....	.6	1.	9.8	34.5	34.5	14.2	4.6	154
Third grade	1.2	.....	.....	.....	1.	3.8	12.0	26.0	34.5	22.2	81
Junior high	.....	.....	20.	.....	.....	40.0	.....	40.0	.....	.....	5
No charter	.....	.....	.....	.....	.....	.....	.....	.....	100.0	.....	1
No report	.....	.....	.....	33.3	33.3	.....	33.3	.....	.....	.....	3
Total number of teachers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,045

*N means no report on the number of classes taught.

median average enrollment in the classes of principals in first-grade schools is 15.42 which is, roughly speaking, one-half the maximum permitted by the standard. The medians for second- and third-grade schools are still lower, and the median for all grades is just below 15. If it were possible to reorganize our schools so that these classes would average 30, it would be possible to reduce the number of schools and

TABLE III. PERCENT OF AVERAGE CLASS ENROLLMENT FOR PRINCIPALS IN ALL TYPES OF SCHOOLS

AVERAGE ENROLLMENT	ALL TYPES OF SCHOOLS					
	First Grade	Second Grade	Third Grade	Junior High	N*	No Charter
(1)	(2)	(3)	(4)	(5)	(6)	(7)
50–54.99	.1					
45–49.99	.1					
40–44.99	.2					
35–39.99	1.0					
30–34.99	2.9			20		
25–29.99	6.0	1.9		20		
20–24.99	18.2	2.6	3.7	20		
15–19.99	24.7	14.9	9.9	40		
10–14.99	28.1	31.8	23.5		67	100
5– 9.99	9.5	35.1	40.7			
0– 4.99	.5	3.3	8.6			
No report†	5.7	10.4	13.6		33	
No classes	4.0					
Total percent	100.0	100.0	100.0	100.0	100.0	100

*N refers to no report on grade of school.
†No report on enrollment.

teachers materially. Such a reorganization might be quite feasible in a large number of our counties if the idea, that a high school must be maintained in each community, could be abandoned. It is not likely, however, that any reorganization could be arranged which would entirely remove some of the smaller classes.

Another factor in the teaching load is the length of the class period. The number and minute-lengths of the periods comprising the school day were tabulated. Table V presents the different lengths of periods reported by the principals, together with the frequency of the appearance of each and its percent of the total. An examination of the table reveals one fact that the class period varied from ten minutes to ninety minutes, with forty-five minutes the period of greatest frequency. Seventy-four percent of the periods were of this length. The forty-minute period ranks second, and the sixty-minute ranks third. The *Ohio High School Standards* states that "all time schedules of daily recitations should provide for class periods of forty-five minutes each. Time is thus afforded for passing of pupils from one recitation to another without reducing below forty minutes the period available for actual class work. No school will be approved if the recitation period is shorter than this minimum." It is apparent, however, that recitation periods of lesser length are being utilized in approved schools.

The number of classes, size of classes, and length of period are independent variables which affect the teaching load. Any comparison of the load of two principals based on any one of these factors is likely to be misleading unless the other factors are considered. For that reason, it seemed advisable to devise a formula which would combine in a single figure the three variables. The formula is arbitrary but was selected after considering similar formulae suggested by other writers:

$$\frac{\text{Total Number of Students}}{\text{Number of Classes}} \times \frac{\text{Total Number of Minutes}}{60}$$

TABLE IV. MEDIAN ENROLLMENT OF CLASSES TAUGHT BY THE PRINCIPALS*

Type of School	Number of Classes	Median Average Enrollment
(1)	(2)	(3)
First grade	723	15.42
Second grade	138	11.02
Third grade	70	9.24
Junior high	5	22.50
All grades	936	14.90

* Data not available for 69 classes taught.

As will readily be seen, the formula gives the total student-clock-hours of teaching for the day.

The first fraction gives the average number of pupils per class, and the second the total teaching time reduced to clock hours.

Table VI gives the teaching load of each of the 808 principals in the four types of schools whose records were sufficiently complete to be utilized. The table is read as follows: One principal in a first-grade high school had a teaching load of between 130 and 139.99 student-clock-hours. Three principals in the same type of school had a teaching load of 120–129.99. The other figures are read in the same manner. It will thus be seen that the median teaching load for the principal was 46.8 student-clock-hours which is just slightly more than the teaching load of the teacher who has four forty-five minute classes with an average enrollment of 15 students. More than one-third of the principals in the first-grade schools had teaching loads of less than forty student-clock-hours, while nearly another third had a load of sixty student-clock-hours or more. The teaching load for principals in second- and third-grade high schools was only slightly less than those in first-grade schools.

The *Ohio High School Standards* states that "the teacher's load expressed in pupil hours may total 180." Since

TABLE V. CLASS PERIODS IN RURAL SCHOOLS OF OHIO*

Minute-Length of Periods	Frequency of Each Period	Percent of Total
(1)	(2)	(3)
90	5	.085
75	1	.015
65	2	.030
64	1	.015
62	1	.015
60	435	6.549
55	45	.678
50	30	1.207
48	1	.015
47	2	.030
45	4884	73.643
44	7	.105
43	48	.723
42½	8	.121
42	134	2.021
41	6	.091
40	746	11.248
35	10	.151
30	118	1.779
28	1	.015
27	1	.015
25	9	.135
20	46	.693
15	38	.572
10	3	.045
Total	6,632	99.999

* Complete data available for length of 888 school days.

this means forty-five-minute periods, the total must be reduced to 135 if we speak in terms of clock hours. An examination of Table VI shows that but one first-grade principal and but one junior high-school principal were teaching this maximum load.

An examination of the proportion of the total school day which these principals spend in teaching reveals some interesting facts. Fourteen principals of first-grade schools, 12 of the second-grade schools, and 37 of the third-grade schools stated that they taught the entire school day. These men evidently must have performed such administrative and supervisory duties as they did perform in hours outside of the regular school day. Even though their teaching load may have been light when computed in terms of student-clock-hours because of small classes, the time which was spent with classes was certainly enough.

TABLE VI. THE TEACHING LOAD AS COMPUTED BY THE FORMULA

Teaching Load	Grades of School				Total Schools*
	First	Second	Third	Junior	
(1)	(2)	(3)	(4)	(5)	(6)
130–139.99	1	.....	.....	1	2
120–129.99	3	1	.....	.....	4
110–119.99	4	.....	1	1	6
100–109.99	10	1	2	.....	13
90– 99.99	17	3	2	.....	22
80– 89.99	26	5	.....	1	32
70– 79.99	51	5	4	.....	60
60– 69.99	68	13	5	.....	86
50– 59.99	95	18	6	.....	119
40– 49.99	127	27	10	.....	164
30– 39.99	120	29	11	.....	160
20– 29.99	77	16	9	1	103
10– 19.99	23	3	2	1	29
0– 9.99	7	.....	1	.....	8
Total	629	121	53	5	808
Median	46.8	44.6	43.5	85.0	46.25

* Complete data from 808 schools out of the 1,045.

Although the data were gathered for the school year 1924–25 the situation relative to the teaching of the principals in rural high schools of the state may be considered representative of the present year. In summary this situation is: About three-fourths of these principals are in first-grade schools where they teach on an average of four or five classes per day, with an average enrollment of about fifteen pupils. The most common length of period is forty-five minutes. The principals in second-and third-grade schools teach a larger number of classes, but the classes are smaller. If the teaching load is reduced to student-clock-hours, it is found that the median load for the principals in first- second- and third-grade schools differs but little. The median in each case is approximately 45 student-clock-hours per day. When this is considered in terms of the maximum permitted by the standard as set up by the state department, they seem small, but when the proportion of the day devoted to teaching is considered it is evident that a large proportion of these principals are of necessity giving so much time to classroom work that administrative and supervisory activities must be carried on outside of regular school hours.

The Bureau of Educational Service of Teachers College, Columbia University, has recently issued a bibliography of research studies and articles pertinent to the work of the appointment secretary. This bibliography is preceded by a list of research studies contemplated, under way, or recently completed by various persons. The bibliography itself is classified under various headings such as teachers' agencies, state agencies, and public employment bureaus. Brief annotations accompany the more important items.

EDUCATIONAL READINGS

MILES, DUDLEY H. *Can the High-School Pupil Improve his Reading Ability?* *JER*, 14:88–98, September, 1926.

This article presents the results of a carefully controlled experiment with high-school classes. It is interesting to find that the bright pupils did not ordinarily show as much gain as the slower pupils. The brighter pupils lost interest in the drills, and tended to make lower scores on the final tests. Improvement depends almost entirely upon the teacher. The teacher must be able to diagnose and prescribe, encourage and stimulate, and then both bright and slow pupils will increase in their comprehension of material read.

GUILER, WALTER C. *Diagnosing Student Shortcomings in English Composition*, *JER*, 14:112–19, September, 1926.

The author was serving as student advisor to a group of college students. He found at the end of the first six weeks that more than a third of them were receiving failing marks in English composition. As a good instructor should, he set out to find out why. He found that even college students are deficient in abilities which presumably had been developed in the primary and intermediate grades. Only a few of the errors were general, so that it was a matter of finding out individual weaknesses and giving the necessary remedial treatment.

HILLIS, C. C. AND SHANNON, J. R. *Directed Study*, *SR*, 34:526–34, September, 1926.

The procedure by which directed or supervised study was initiated in their schools is given in clear detail by the authors. The trouble with supervised study as undertaken in many schools has been the inadequate preparation for such a plan and the fact that the teachers did not know what to do. This superintendent and principal adequately cared for those difficulties by the method which is set forth.

DAVIS, C. O. *Provisions for Meeting Individual Differences among Pupils in the Junior High School*, *SR*, 34:510–20, September, 1926.

This article is highly suggestive and seems to indicate that junior high schools are quite conscious of the problem of meeting individual differences and are definitely attempting to do something about it. It consists largely of quotations from principals of high schools in the Middle West.

GATES, ARTHUR I. *A Series of Tests for the Measurement and Diagnosis of Reading Ability in Grades 3 to 8*, *TCR*, 28:1–23, September, 1926.

The author has assumed that reading is not a single general ability, and has sought to analyze the reading abilities and then construct tests for the measurement of these abilities. Four types of such tests have been developed as follows: reading to appreciate the general significance of a paragraph; reading to predict the outcome of given events; reading to understand precise directions; and reading to note details. The scoring of the tests includes a rate score for general reading, and an accuracy score, as well as the scores on the various tests. A composite score may be used to indicate general reading ability.

REED, MARY M. *Social Studies in the Kindergarten and First Grade*, *TCR*, 28:29–49, September, 1926.

The data for the curriculum were obtained (1) by making observations and records of what children actually do to show inability to adjust themselves socially in a school environment, and of interests which indicate that social adjustments are being made, and (2) by making inventories of the social needs and interests from actual records. The criteria used to evaluate the interests were: the leading-on quality of the children's interests; the social significance of the interest; the frequency of the interests; and the recurrence of the interest. Concrete examples of utilizing child interest are given in detail, while the curriculum is presented in outline form.

CAMENISCH, SOPHIA CATHERINE. *A Procedure for Remedial Work in the Mechanics of English*, *EJ*, 15:515–20, September, 1926.

A teach-test-drill-test procedure, with special reference to the ninth grade, is described in some detail. As in all remedial work, the purpose here is to do away with the waste of time caused by carelessness and the failure to master the mere mechanics of composition. The advantage claimed for this particular method is that of combined individual and group teaching through the use of individual instruction and correction sheets.

NOTE.—The abbreviations used in this number are: *JER*, Journal of Educational Research; *SR*, School Review; *TCR*, Teachers College Record; *EJ*, English Journal; *ESJ*, Elementary School Journal; and *ASBJ*, American School Board Journal.

BROWN, H. A. *New Standards for Teachers' Colleges*, *ESJ*, 27:48–59, September, 1926.

The development of teacher-training institutions in recent years has been toward the expansion of the two-year normal schools into four-year institutions. These institutions in many cases have been especially ambitious to assume the name "college" and to grant degrees. President Brown of the Oshkosh State Normal School, Oshkosh, Wisconsin, sets forth clearly the problems which are being raised by this development and then presents the standards for accrediting teachers' colleges, adopted by the American Association of Teachers' Colleges at Washington, D. C., last February.

WASHBURNE, C. W. *Social Practices in Arithmetic Fundamentals*, *ESJ*, 27:60–66, September, 1926.

This is a report of an investigation conducted by a committee of superintendents and principals to discover the relation between the skill of our elementary-school children in the fundamental processes of arithmetic as compared with the skill of members of business and social clubs. On the basis of the results from certain of the Cleveland Survey Tests, we find that eighth-grade children do multiplication, division, and common fractions more skillfully than do their elders but have less skill in addition and subtraction.

SCHUTTE, T. H. *The Teacher, through the Students' Eyes*, *ASBJ*, 73:72–79, September, 1926.

This is a report of a questionnaire given by a normal-school teacher to his students. The replies of the students were not unanimous in favor of the instructor, and the writer suggests that "teachers would do well to give students an opportunity occasionally to rate them."

KILZER, L. R. *The Test-Study Method Versus the Study-Test Method in Teaching Spelling*, *SR*, 34:521–25, September, 1926.

This is a very brief report of a carefully controlled experiment conducted under the direction of Dr. Horn at the University of Iowa. The essence of the findings may be stated in a single sentence: The test-study method is significantly superior to the study-test method for immediate recall, and equally good for delayed recall.

BRUECKNER, L. J. *Diagnostic Analysis of Classroom Procedures*, *ESJ*, 27:25–40, September, 1926.

Two analyses of daily activities such as the author contends supervisors should make in order to adequately evaluate the teaching procedure are given in this article. A card for the analysis of classroom activities which may be kept by the teachers and which will be of assistance in supervisory work is also given. The values and limitations of the procedure are well pointed out.

KIRBY, THOMAS J. *Subject Combinations in High-School Teachers' Programs*, *SR*, 34: 494–505, September, 1926.

The article summarizes some of the findings which are given in detail in the "University of Iowa Extension Bulletin," No. 136, under the same title. The study deals with nearly fifteen hundred teachers in Iowa high schools and shows an existing condition which should challenge the attention of those engaged in the preparation of teachers for various fields.

KITSON, HARRY DEXTER. *The Scientific Compilation of Vocational Histories as a Method to be Used in Vocational Guidance*, *TCR*, 28:50–57, September, 1926.

What steps must a young man take in his progress through a given vocation, and how long must he remain in each of the steps? This is information that can and should be scientifically determined for many vocations, that it may be used intelligently in counseling young people on the possibilities of a vocation.

IN PAPER COVERS

NATIONAL EDUCATION ASSOCIATION. *The Ability of the States to Support Education*. Washington, D. C., 1926. 88 pp. (Research Bulletin, Vol. IV, Nos. 1 and 2)

This bulletin is a veritable mine of helpful material and comparisons. It shows the economic resources of the states, the educational obligations of the states, and the relative ability of the states to support education, with accompaniments of these differences, including certain unmeasured factors that affect the ability of the states to support education. All is abundantly illustrated by charts and carefully supported by statistical tables.

MORRISON, J. CAYCE. *The School Principalship in Ohio Cities and Exempted Villages*. Columbus, Ohio, Ohio State University, 1926. 67 pp. (Ohio State University Bulletin. Contributions in Educational Administration, No. 2)

A composite of the school principalships in Ohio is presented in this bulletin. The kinds of principalships, the experience, preparation, salaries, and professional improvement of the principals, their participation in community activities, the office equipment which they have, length of working day, supervisory duties and

many other things are given. It is just such a report as should be in the hands of every principal and superintendent, to be used for improving the status of this important school official.

COFFIN, HELEN J. AND PECK, OLIVE S. *Sight-Saving Classes.* Cleveland, Ohio, Cleveland Public Schools, 1926. 68 pp.

Sight-saving classes in Cleveland schools are described and their organization and procedure set forth in this booklet. Cleveland has been a pioneer in the development of sight-saving methods for school children. As early as 1911 this work was started, and the best of the city's experience in this field is gathered into this new publication.

MINNESOTA, UNIVERSITY OF. *Efficient Use of School Buildings.* Minneapolis, Minnesota, 1926. 16 pp. (University of Minnesota, College of Education, Research Bulletin, Vol. 29, No. 37)

In planning the educational plant for any community many factors should be considered, such as present location of pupils, probable growth of the community, and needs for certain types and kinds of buildings. In designing the building itself plans should be so drawn as to provide for the greatest economy and efficiency in operation. Very few buildings are constructed for capacity use. This is especially true of special rooms for manual training, printing, and other courses, as well as laboratories.

CAVINS, LORIMER V. AND BOWMAN, EDGAR L. *The Financing of Education in West Virginia.* Charleston, W. Va., 1926. 94 pp. (57 tables, 11 charts.) (Geo. M. Ford, State Superintendent of Free Schools)

This study is characterized by a careful, sensible presentation of hard facts. Enrollment has increased 19 percent since 1915, and the school term has been lengthened 20 percent. The depreciation of the dollar, increase in quality of service, and other factors such as a 20-percent increase in the length of the school term and a 19-percent increase in enrollment since 1915, indicate that the people are getting more for their money than they did in 1915.

There is the usual wide variability in the ability of districts to pay. The solution offered is a state-wide distributable fund, a county unit for taxation purposes, and a further state-aid fund.

Report of the General Curricular Revision Committee to the Board of Normal School Principals. Harrisburg, Pennsylvania, 1926. 82 pp.

This report is an honest effort to solve one of the perplexing education problems, that is, the course of study to be pursued by the teacher in training. The committee sought the judgments of specialists in the field, consulted the members of the state educational staff, held hearings for the proponents of various branches of training, sent questionnaires to the graduates of the normal schools, and, in short, in the words of the committee, "sought to use every known source of information and inspiration." They present in the report a detailed and comprehensive outline of the recommended courses, and give a brief description of the contents of each course.

BALTIMORE, CITY OF. *Improvement in the Teaching of Reading.* Baltimore, Md., 1926. 129 pp. (Bureau of Educational Research Monographs, No. 1)

This is a compilation of articles by nationally known investigators in the field of reading. The mention of a few of the contributors will indicate something of the scope of the monograph. Among these are found Gray, Buswell, Miss Zirbes, Gates, McCall and Frances Berry. The monograph is valuable as a compendium on reading, but many of the contributed articles are essentially general in nature. There are some practical and concrete articles that should prove of great interest and worth to the classroom teacher, for whom the book is intended.

BOWDOIN COLLEGE, *Report on the Needs of the College.* Brunswick, Me., 1926. 60 pp. (Report of a committee of students)

The undergraduate committee has made a very serious and thoughtful study of their institution, and their findings and suggestions for improvement are presented in this report. By means of a questionnaire to the undergraduate body they attempted to find out what the student body thought of the policies and practices of the college. As was to be expected there was no unanimity on the various questions. The report should prove of interest to all liberal arts colleges.

AMERICAN CHILD HEALTH ASSOCIATION. *Report of the Chicago Health Education Conference.* New York, American Child Health Association, 1926. 356 pp.

The American Child Health Association met at the University of Chicago in June, 1925, and the printed proceedings of this meeting are now available. The discussion was centered around three main ideas: first, the health program in secondary schools, second, teacher training for health education, and third, materials for health education. Much of the discussion was informal, but the volume bristles with valuable material for all who are seriously working at health education.

BOOKS TO READ

BROOKS, FOWLER D. *The Applied Psychology of Reading.* New York, D. Appleton Company, 1926. 278 pp.

This well-organized discussion of the applied psychology of reading includes within its sixteen chapter titles such pertinent topics as: "The Nature and Processes of Reading," "Motor Phases of Reading," "Eye-Movement, Measurement of Achievement in Reading," "How to Diagnose Reading Deficiencies," "How to Improve Oral and Silent Reading," and "Diagnosis and Remedial Measures."

O'BRIEN, J. A. *Reading: Its Psychology and Pedagogy.* New York, The Century Company, 1926. 308 pp.

The author of this book has borrowed generously from the laboratory studies in reading made by the School of Education, University of Chicago and published as "Supplementary Educational Monographs." He has also used the material gathered in his own extensive study of training in rapid reading. One reviewer believes that the manuscript must have been prepared before the *Report of the National Committee on Reading* had appeared, as well as before the publication of Gray's *Summary of Investigations on Reading.* This reviewer finds the book markedly incomplete in its treatment of research investigations and methods—topics which were discussed in considerable detail in these just-mentioned studies.

KLAPPER, PAUL. *Teaching Children to Read.* 4th ed. New York, D. Appleton Company, 1926. 304 pp.

In this revised edition of his earlier book, the author has greatly improved his discussion of the problems of teaching reading. The newer interpretations of reading as a school subject and improved methods reached through extensive scientific investigations are included in this later edition. The earlier chapters are devoted to a discussion of a scientific study of reading and to educational implications; subject-matter, methods and textbooks for the primary grades are later considered; while the final chapters are concerned with the problems of silent reading and standardized tests.

FLANDERS, JESSE K. *Legislative Control of the Elementary Curriculum.* New York, Teachers College, Columbia University, 1925. 242 pp. (Teachers College, Contributions to Education, No. 195)

This recent and significant investigation reveals the extent to which the elementary curriculum is prescribed by statutory enactment. The author has analyzed the educational laws of the states of the United States, which were in force in 1903, 1913, and 1923. He has made this analysis in order to determine the development of the policy of prescribing the elementary curriculum which has characterized the different states. He shows the tendency and the present status of legislatures concerning the teaching of nationalism, health and prohibition, conservation of life and property, practical and cultural subjects, and miscellaneous. The author finds that the total number of prescriptions in 1903 was 564; in 1913, 720; and in 1923, 926. That is, an increase of 65 percent during the twenty-year interval. Students of the curriculum and of educational sociology will find this book interesting as well as suggestive.

MELTZER, H. *Children's Social Concepts: A Study of Their Nature and Development.* New York, Teachers College, Columbia University, 1925. 91 pp. (Teachers College, Columbia University, Contributions to Education, No. 192)

Concepts are the medium which functionally relate our past experience to a present situation and come out changed. This study attempts to discover how some basic concepts of contemporary life are developed in the minds of children. A list of 191 concepts for testing their reactions was obtained by studying 112 issues of critical magazines, spread over a period of five years, and four books. Some of the results of testing show that the personal interview is the best method of examination; that children's conceptions develop from grade to grade; and that the school curriculum has a direct influence on the grasp of concepts. The list of concepts given is presented not as a complete one, but as a sample of one procedure which may be used to determine social-science curriculum materials more objectively than heretofore.

VISUAL INSTRUCTION ASSOCIATION. *Visual Instruction Handbook.* New York, Visual Instruction Association of America, 1926. 46 pp.

To all who are interested in visual education, and this should include all of the teachers in our public schools, this handbook should be welcome. An article on the use of museum material and another on some of the problems of organization and administration should prove especially helpful.

KANSAS CITY, *Activities of the Auditorium.* Kansas City, Missouri, Platoon Schools, 1926. 128 pp.

A course of study is presented which deals with the organization of the work in the auditorium, the activities of the auditorium, relationship to other departments, and the activities of the schools. The booklet contains a great deal of illustrative material, and an extended bibliography is appended.

TESTS OLD AND NEW

IN the sample set of tests received recently from the Public School Publishing Company tests old and new were found. The familiar elementary tests included the Van Wagenen Revision of Woody Arithmetic Scales, Diagnostic Reading Scales for grades III to VI by L. C. Pressey and others, and the Van Wagenen Spelling Scales. The Pittsburgh Arithmetic Scale, devised by J. Freeman Guy and described in his pamphlet *Pittsburgh Arithmetic Survey* is now being published by the Public School Publishing Company. The Iowa Spelling Scales devised by E. J. Ashbaugh appear in neat paper covers—a booklet for each grade from I to VIII. Each list has been arranged according to the difficulty of the words definitely determined for the grade in question. The method used is tersely described in the introduction to each grade's booklet. Here at nominal cost the teacher of any elementary grade may obtain a scientifically graded spelling list which may be used to measure spelling ability or growth in spelling ability, or serve as a minimum list to be mastered. The New York English Tests under the title the *English Survey Tests* also appeared in this package. The familiar high-school tests included tests in commercial arithmetic, geometry, physics, biology, botany, and home economics.

The Test in Civic Attitudes devised by Howard C. Hill comprises two tests, one in civic information, the other in civic attitudes. The tests, arranged in multiple-choice form, are prepared for grades VI to XII.

The Torgerson-Fahnestock Music Test aspires to provide an objective measurement of attainments in the theoretical and practical aspects of music for the individual and for the group as well. Part A is concerned with certain theoretical aspects of music; Part B, with ear training. This test is still in the formative stage for the authors solicit the cooperation of teachers in the public schools in their effort to establish the requisite standards for each grade.

The purpose of the new Letter-Writing Test, devised by F. Leslie Clark, is to check pupils on their knowledge of correct form in letter writing.

The Study Outline Test by F. Dean McCluskey and Edward W. Dolch is devised to test the pupil's ability to recognize and indicate the outline used by the author in writing upon a certain topic. The test appears in three forms of varying degrees of difficulty. The method to be used is to give the pupil the most difficult form first, if he fails on this the second hardest, if this is too difficult then the third or easiest form. The order may then be reversed and the test used as a teaching device.

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THE *Desk for Personal Helps in Social Science Teaching*, which is published by the University of Kansas School of Education, under the direction of Assistant Professor E. M. Belles, has been sent to the Bureau of Educational Research by an admirer of the Bulletin. The first 1926–27 issue of this two-year-old, mimeographed bulletin states that its purpose is to serve as a "trouble station" for difficulties and problems —a source upon which the teacher of social sciences may rely for suggestions, criticisms, and aids.

Only materials and ideas which have been tested and found successful in the Oread Training School at the University of Kansas will be published, according to the editor. An article, "Teach How to Study," and a list of periodicals, with a thumb-nail description of each, are the principal features in the initial number of this bulletin.